



IDAHO
NATIONAL
LABORATORY **FY17**

Economic Summary

RESEARCH AND DEVELOPMENT

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RESULTS SUMMARY

As one of the largest employers in the state, Idaho National Laboratory (INL) provides a significant economic impact on Idaho's economy. Employment for INL during fiscal year (FY) 2017 was nearly 4,300, making it Idaho's sixth-largest private employer and ninth-largest employer when compared to all public and private businesses. INL's total output impact improved by \$27.6 million—a 1.4 percent increase—between FY 2016 and FY 2017.

As INL continues to develop and grow, so does Idaho's economy. A more developed economy enhances the opportunity for the state of Idaho to capture economic benefits from INL's presence. Dually beneficial economic activity between INL and supporting businesses becomes increasingly possible.

One of the 17 United States Department of Energy (DOE) national laboratories, INL is focused on changing the world's energy future and securing the nation's critical infrastructure. The laboratory's mission is to discover, demonstrate, and secure innovative nuclear energy solutions, other clean energy options, and critical infrastructure.

INL is the nation's leading center for nuclear energy research and development. Day-to-day management and operation of the laboratory is the responsibility of Battelle Energy Alliance, LLC (BEA).

This study evaluates the total economic impact that INL operations have on Idaho's economy. The economic impacts identified in this study only include INL operations, which are managed by BEA. This study does not evaluate the economic impact on Idaho of DOE contractor Fluor Idaho (1,683 employees), DOE itself (215 employees), Naval Reactors Facility (1,245 employees) or their subcontractors.

Economic impacts are separated into the following three categories: direct impact, composed of operational expenditures made by INL; indirect impacts, which are the result of interindustry trade between INL and suppliers of goods and services within Idaho; and induced impacts, created by households spending income earned directly or indirectly from INL operations. Total economic impact is the combination of all three impact categories.

Combining INL operations with additional indirect and induced impacts, the Laboratory adds \$1.94 billion to total output and more than 12,000 people to employment in Idaho. Table 1 summarizes the impacts. Other important impacts include the following:

- INL's total output impact increased by \$27.6 million between FY 2016 and FY 2017—a 1.4 percent increase.
- The total employment impact of INL operations accounts for 2.1 percent of Idaho's employment.
- INL directly employed 4,256 workers in Idaho; secondary effects in Idaho accounted for an additional 7,771 jobs for a total of 12,027 jobs—a 6.7 percent increase from FY 2016.
- INL brought money into Idaho and generated additional value-added output of nearly \$1.16 billion.
- INL accounted for nearly 2.9 percent of statewide economic output.
- INL generated nearly \$935 million of economic output through INL suppliers and employee household spending.
- INL increased personal income in the state by \$862 million.
- INL's economic impacts accounted for 1.3 percent of all personal income in the state.
- INL impacts resulted in an estimated \$69 million in state and local tax revenues.
- Taxes generated by INL operations account for 1.7 percent of total state and local tax revenue (based on FY 2016 state tax revenues).
- Average base salary of an INL employee in FY 2017 increased to \$95,768 annually, up from \$92,660 in FY 2016.
- BEA subcontracted nearly \$140 million to Idaho subcontractors.
- BEA corporate office contributed more than \$610,000 to charitable giving.

TABLE 1. COMBINED INL ECONOMIC IMPACT ON IDAHO

IMPACT TYPE	EMPLOYMENT ^a	LABOR INCOME ^b	VALUE ADDED ^c	OUTPUT ^d
Direct	4,256	\$569,456,093	\$667,943,955	\$1,000,735,504
Indirect	3,322	\$129,199,318	\$205,978,884	\$393,893,045
Induced	4,449	\$163,662,339	\$286,243,922	\$540,773,264
Total Impact	12,027	\$862,317,750	\$1,160,166,761	\$1,935,401,813
Multiplier	2.83	1.51	1.74	1.93

^aEmployment — The number of jobs created or sustained.

^bLabor Income — The amount of income including wages and salaries, employee benefits and payroll taxes.

^cValue Added — The value of a combination of innovation and improvements made as basic resources and intermediate goods are processed into final goods.

^dOutput — The value of industry output or contributions to state gross domestic output.

DIRECT IMPACTS

Direct impacts consist of total operating expenses including the purchase of goods and services, taxes, education reimbursements, and payments to employees. These direct impacts for FY 2017 account for more than \$1 billion (see Table 2). Payments to employees can be broken down into payment of wages, salaries, and employee benefits. See Figure 1 for an illustration of INL's direct spending and total impact on Idaho's economy.

To improve the accuracy of the economic impact model, INL operations and expenditures were analyzed according to the department or directorate where the expenses were incurred. Direct effects were aggregated according to industry and directorate similarities, which created a series of industry categories that more closely represent INL operations.

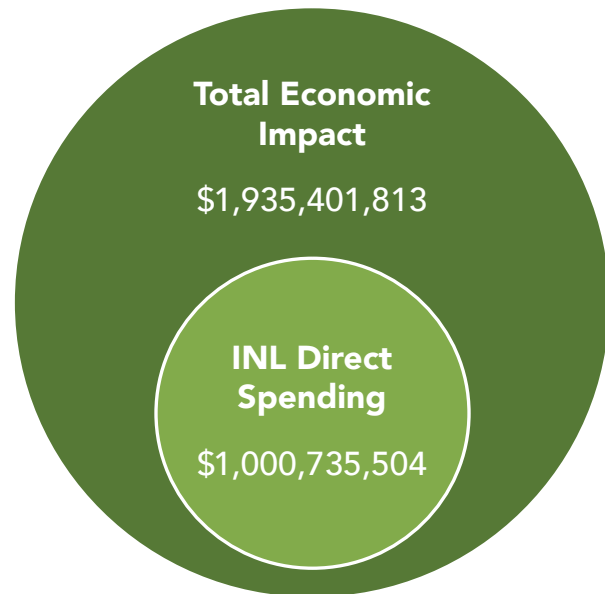


FIGURE 1. INL DIRECT SPENDING AND TOTAL ECONOMIC IMPACT

TABLE 2. DIRECT IMPACTS COMPARISON

EXPENSE	FY 2014	FY 2015	FY 2016	FY 2017*
Goods and Services	\$393,658,683	\$433,152,731	\$512,362,318	\$431,279,411
Payroll Benefits Medical	\$45,603,107	\$53,280,337	\$69,345,685	\$66,949,001
Payroll Benefits Retirement	\$37,670,747	\$46,833,027	\$55,567,081	\$57,047,239
Payroll Salaries*	\$355,399,575	\$383,857,473	\$396,575,209	\$445,459,853
Grand Total	\$832,332,112	\$917,123,568	\$1,033,850,293	\$1,000,735,504

*Prior to FY 2017, Leave Benefit costs were reported in the Goods and Services category. In FY 2017, Leave Benefit costs were reclassified from Goods and Services to Payroll Salaries in the amount of \$59 million.

IMPACT ON TOTAL OUTPUT

In FY 2017, INL operations added \$1.94 billion to Idaho's gross economic output. This represents more than 2.9 percent of Idaho's total output or gross state product. The increase comes as a result of the direct effects of INL operations being multiplied through the economy. During FY 2017, INL contracted to purchase more than \$139 million worth of goods and services from Idaho businesses. According to the economic impact model and the presence of potential supporting businesses, the actual indirect impact of INL operations could reach \$394 million.

INL employees' spending creates an additional induced effect of \$541 million on Idaho's economy. For every \$100 in direct economic activity at INL, an additional \$93 of activity is created or sustained throughout the state's economy. This results in an output multiplier of 1.93. See Figures 2 and 3 for an illustration of INL's impact on total output.

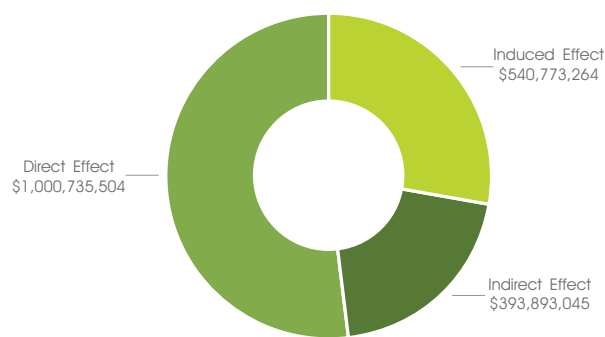


FIGURE 2. IMPACT ON TOTAL OUTPUT: \$1,935,401,813

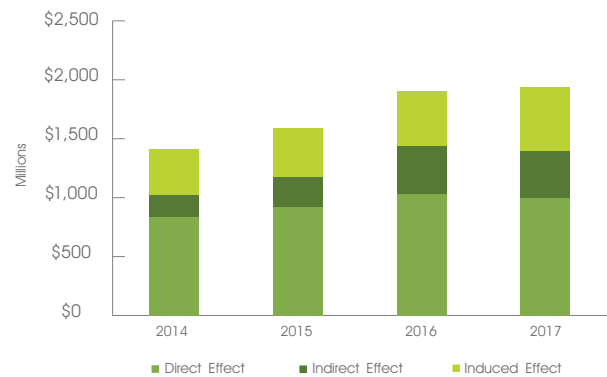


FIGURE 3. INL ECONOMIC IMPACTS OF FY 2014-2017

IMPACT ON EMPLOYMENT

INL's average employment for FY 2017 was 4,256. An additional 3,322 jobs were created or sustained by industries that support INL operations. INL employee spending creates or sustains an additional 4,449 jobs throughout Idaho. The combined employment impact accounts for 12,027 jobs. For every 100 INL jobs created, an additional 183 jobs are created or sustained throughout Idaho. See Figures 4 and 5 for an illustration of INL's impact on employment.

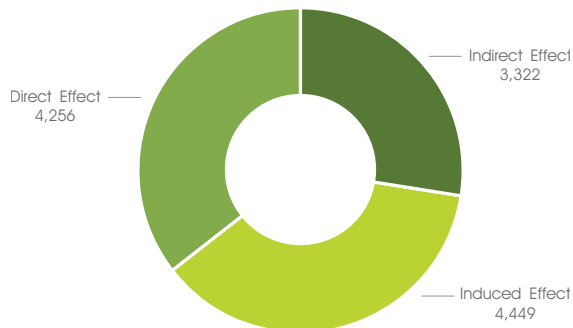


FIGURE 4. IMPACT ON EMPLOYMENT: 12,027

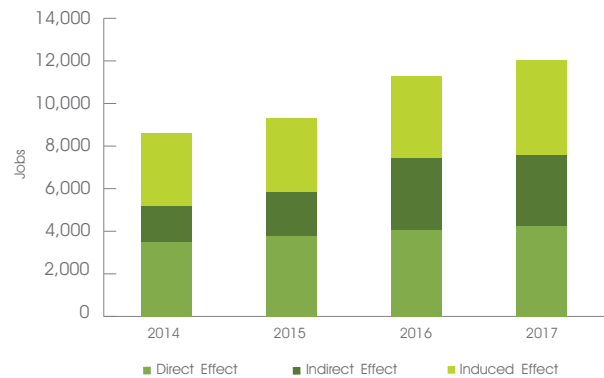


FIGURE 5. HISTORICAL EMPLOYMENT IMPACTS

IMPACT ON LABOR INCOME

INL's impact on Idaho's total labor income for FY 2017 was more than \$862 million, or 1.3 percent of Idaho's total personal income. Total labor income includes wages and salaries, employee benefits, and payroll taxes. The total income for employees of industries that support INL operations was more than \$129 million. INL employees' household spending patterns generated \$164 million in employee compensation for individuals employed by Idaho businesses. The average base salary of an INL employee was \$95,768. See Figures 6 and 7 for an illustration of INL's impact on labor income.

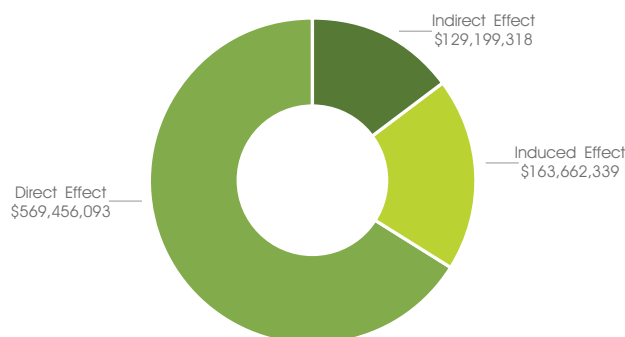


FIGURE 6. IMPACT ON LABOR INCOME: \$862,317,750

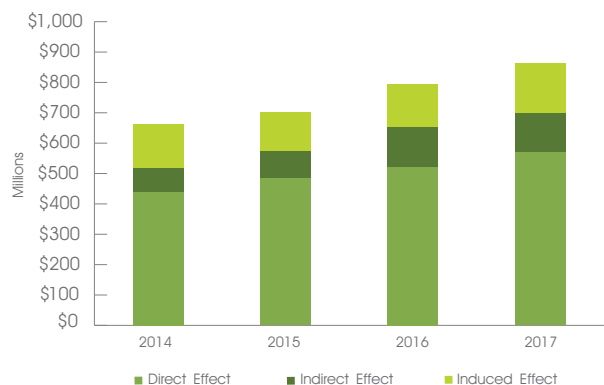


FIGURE 7. HISTORICAL LABOR INCOME IMPACT

VALUE-ADDED IMPACT

Value-added impacts are created by a combination of innovation and improvement made as basic resources and intermediate goods are processed into final goods. Service-related production also added significant value to the economy. INL directly added nearly \$668 million of value to Idaho. Industries that supported INL indirectly added nearly \$206 million of value to Idaho. Induced value-added impacts resulted in more than \$286 million in economic activity. The total value-added impact was more than \$1.16 billion. See Figures 8 and 9 for an illustration on INL's value-added impact.

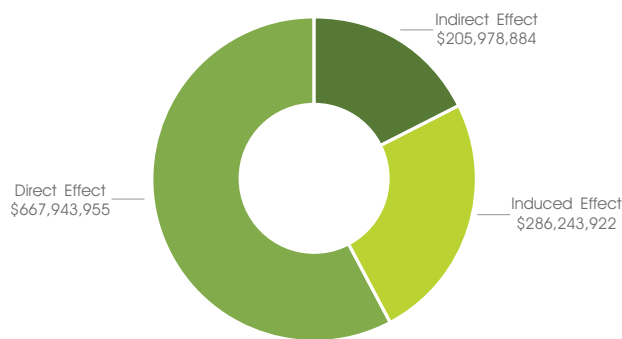


FIGURE 8. IMPACT ON VALUE-ADDED: \$1,160,166,761

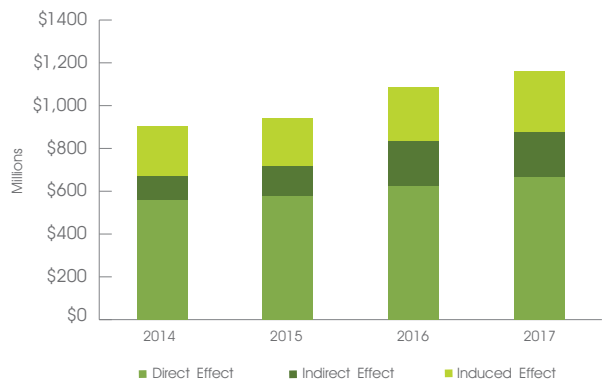


FIGURE 9. HISTORICAL VALUE-ADDED IMPACT

INL TOTAL IMPACT COMPARISON

INL's increased economic activity in FY 2017 led to a \$27.6 million or 1.4 percent increase in output when compared to FY 2016. This resulted in a net change of 751 jobs throughout Idaho. Added employment at INL and supporting business fueled growth in labor income by almost \$68 million—an 8.5 percent increase over FY 2016. The combined value-added impact of innovation at INL and supporting businesses improved by more than \$75 million or 7 percent from FY 2016 to FY 2017.

TABLE 3. INL TOTAL IMPACT COMPARISON

IMPACT TYPE	FY 2014	FY 2015	FY 2016	FY 2017	FY 2016–FY 2017 CHANGE	CHANGE
Output	\$1,414,073,866	\$1,584,224,324	\$1,907,782,973	\$1,935,401,813	\$27,618,840	1.4%
Value Added	\$902,501,176	\$941,892,352	\$1,084,620,317	\$1,160,166,761	\$75,546,444	7.0%
Labor Income	\$661,489,021	\$702,866,059	\$794,598,403	\$862,317,750	\$67,719,347	8.5%
Employment	8,615	9,293	11,276	12,027	751	6.7%

MULTIPLIERS

INL has a direct impact on the economy, but it also has a “multiplier” impact because of interdependencies among industries. These industries support INL operations by supplying goods and services that further impact Idaho’s economy. Additionally, INL employees who live in Idaho spend a portion of their paychecks and support local business, which contributes to the induced economic impacts. INL’s multipliers are as follows:

- **Output Multiplier** - INL’s output multiplier was **1.93**, which means that for every \$100 of direct impact added by INL operations, an additional \$93 dollars will be generated throughout Idaho’s economy.
- **Value-Added Multiplier** - INL’s value-added multiplier is **1.74**, which means that if value added by INL to the production of final goods and services were to increase by \$100, then an additional \$74 in value would be added to Idaho’s economy.
- **Labor Income Multiplier** - INL’s labor income multiplier is **1.51**, which means that if INL employee compensation were to increase by \$100, then an additional \$51 in employee compensation would be added to Idaho’s economy.
- **Employment Multiplier** - INL’s employment multiplier is **2.83**, which means that an addition of 100 employees to INL’s payroll will result in an additional 183 jobs created throughout Idaho’s economy.



INL is one of the U.S. Department of Energy's
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